

REMARKS

This responds to the Final Office Action mailed on April 8, 2009.

No claims are amended or cancelled. Claims 10-12 and 53-66 are pending in this application.

§ 103 Rejection of the Claims

Claims 10, 12, 64 and 65 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota (U.S. Patent No. 5,361,660) in view of Lyon (U.S. Patent No. 2,821,156).

Applicant traverses. Applicant believes claim 10 is not obvious in view of the Tsubota and Lyon references since, even if combined, the combination does not include or suggest each limitation recited in the claim. For instance, Applicant cannot find in the cited combination: delivering the lubricant to a periphery of an open upper end of the die hole, wherein the lubricant is directed so as to be concentrated at a specified, pre-determined location on the periphery of the open upper end of the die hole such that the specified, pre-determined location on the periphery of the open upper end of the die hole has a higher concentration of lubricant than other locations on the periphery of the open upper end of the die hole, as recited in claim 10.

In contrast, the Tsubota reference discusses that “[t]he cutting oil from the oil supply source 23 is mixed with air and is fed in an atomized state in the form of upward intermittent spurts from the pressurized air supply source to the interior of the cylindrical tool die 11, such that it sticks to the lower tool 7.” (Col. 4, lines 13-18). Thus, the Tsubota reference discusses blowing atomized oil to cover the interior of the die. The atomized oil apparently covers the interior and the periphery of the die relatively equally, and is not concentrated at a specified, pre-determined location on the periphery of the open upper end of the die hole, as recited in claim 10.

In the Lyon reference, lubricant is delivered to the upper portion of the die to annular groove 37 by eight symmetrical passageways 41. (See Fig. 4 and col. 2, line 60 – col. 3, line 2). Thus groove 37 is filled equally all around with lubricant and the lubricant is not concentrated at a specified, predetermined location of the groove.

Accordingly, even if combined, and even if a rectangular work-piece was being cut, as suggested by the Examiner in the Response to Arguments section of the Office Action, the combination would have symmetrical, non-concentrated lubrication at the upper open end of the die hole, as opposed to the lubricant being directed so as to be concentrated at a specified, pre-determined location on the periphery of the open upper end of the die hole such that the specified, pre-determined location on the periphery of the open upper end of the die hole has a higher concentration of lubricant than other locations on the periphery of the open upper end of the die hole, as recited in claim 10.

The Examiner further states that “each location about the periphery of the die hole is considered to be a specific predetermined location on the periphery of the die hole.” (Page 2 of Office Action). But this assertion means nothing. Even if each location can be considered a specific predetermined location, nothing in either reference describes delivering the lubricant so that “the lubricant is directed so as to be concentrated at the specified, pre-determined location.” If every location on the periphery is a specific predetermined location, then how can the lubricant be “directed” so that a specific predetermined location has a higher concentration of lubricant than other locations, as claimed?

In the Response to Arguments section, the Examiner further states that if the workpiece were a rectangle then the “groove along the long side of the rectangle will hold more lubricant (higher concentration) than a groove along a short side.” (Page 4). However, this is not necessarily so. The long groove may hold more lubricant in total, but it would have the same concentration (amount per area) as the short grooves.

Claims 12 and 64 include each limitation of their parent claim and are therefore also not obvious in view of the cited references. Reconsideration and allowance is respectfully requested.

Claim 65

Applicant traverses. Applicant believes claim 65 is not obvious in view of the cited references since, even if combined, the combination does not include or suggest each limitation recited in the claim. For instance, Applicant cannot find in the cited combination: wherein the lubricant directed so as to be concentrated at a specified, pre-determined location on the periphery of the open upper end of the die hole where the punch will cut through the aluminum

portion of the sheet and such that the specified, pre-determined location on the periphery of the open upper end of the die hole has a higher concentration of lubricant than other locations on the periphery of the open upper end of the die hole, as recited in claim 65.

As discussed above, the Tsubota reference discusses blowing atomized oil to cover the interior of the die. The atomized oil apparently covers the interior and the periphery of the die relatively equally. Also, nothing in the cited reference indicates that the lubricant is delivered specifically to an aluminum and not an aluminum oxide portion of the work piece, as claimed.

In the Lyon reference, lubricant is delivered to the upper portion of the die to annular groove 37 by eight symmetrical passageways 41. (See Fig. 4; and col. 2, line 60 – col. 3, line 2). Thus groove 37 is filled equally all around with lubricant and the lubricant is not concentrated at a specified, pre-determined location of the groove.

Accordingly, even if combined, the combination would include symmetrical lubrication at the upper open end of the die hole; as opposed to the lubricant being directed so as to be concentrated at a specified, pre-determined location on the periphery of the open upper end of the die hole where the punch will cut through the aluminum portion of the sheet and such that the specified, pre-determined location on the periphery of the open upper end of the die hole has a higher concentration of lubricant than other locations on the periphery of the open upper end of the die hole, as recited in claim 65. The discussion for claim 10 is incorporated herein.

Reconsideration and allowance is respectfully requested.

Claims 11 and 66 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota in view of Lyon as applied to claims 10 and 65 above, and further in view of Klint et al. (U.S. Patent No. 3,288,715, hereafter “Klint”).

Claims 11 and 66 include each limitation of their respective parent claims and are not obvious in view of the cited references since the secondary reference does not overcome the deficiencies of the primary references discussed above. Reconsideration and allowance is respectfully requested.

Claim 57 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsubota in view of Lyon as applied to claim 10 above, and further in view of 3M, "Fluorinert Electronic Liquid FC-43", May 2000.

Claim 57 includes each limitation of its parent claim and is not obvious in view of the cited references since the secondary reference does not overcome the deficiencies of the primary references discussed above. Reconsideration and allowance is respectfully requested.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 359-3267 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

6/4/09

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 4th day of May, 2009.

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